

# COOLING SYSTEM FOR A VEHICLE BATTERY

## Abstract

A cooling system for a battery in a vehicle is provided. The cooling system does not use air from the vehicle passenger compartment, but rather, takes in ambient air from outside the vehicle. When the temperature of the ambient air outside the vehicle is low enough, the air is moved through a duct system by a pair of fans and blown across a battery assembly. When the temperature of the ambient air outside the vehicle is too warm to cool the battery directly, it is first passed through an evaporator coil where it exchanges heat with a refrigerant, prior to being blown across the battery assembly. The cooling air may be recirculated across the battery assembly, or exhausted from the vehicle through an air extractor.